



Do the Member States of the European Union comply with the legal requirements for pigs regarding manipulable material and tail docking?

*Efterlever medlemsländerna i Europeiska Unionen
grisdirektivets paragrafer om manipulerbart material och
svanskupering?*

Frida Edman

Skara 2014

Etologi och djurskyddsprogrammet



Photo: Staaf Larsson, 2007.

Studentarbete
Sveriges lantbruksuniversitet
Institutionen för husdjurens miljö och hälsa

Nr. 572

Student report
Swedish University of Agricultural Sciences
Department of Animal Environment and Health

No. 572

ISSN 1652-280X



Do the Member States of the European Union comply with the legal requirements for pigs regarding manipulable material and tail docking?

Efterlever medlemsländerna i Europeiska Unionen grisdirektivets paragrafer om manipulerbart material och svanskupering?

Frida Edman

Studentarbete 572, Skara 2014

G2E, 15 hp, Etologi och djurskyddsprogrammet, självständigt arbete i biologi, kurskod EX0520

Handledare: Bo Algers

Institutionen för husdjurens miljö och hälsa, Box 234, Gråbrödragatan 19, 532 23 Skara

Examinator: Johan Loberg

Institutionen för husdjurens miljö och hälsa, Box 234, Gråbrödragatan 19, 532 23 Skara

Nyckelord: Council Directive on pigs, tail docking, manipulable material

Serie: Studentarbete/Sveriges lantbruksuniversitet, Institutionen för husdjurens miljö och hälsa, nr. 572, ISSN 1652-280X

Sveriges lantbruksuniversitet

Fakulteten för veterinärmedicin och husdjursvetenskap

Institutionen för husdjurens miljö och hälsa

Box 234, 532 23 SKARA

E-post: hmh@slu.se, **Hemsida:** www.slu.se/husdjurmiljohalsa

I denna serie publiceras olika typer av studentarbeten, bl.a. examensarbeten, vanligtvis omfattande 7,5-30 hp. Studentarbeten ingår som en obligatorisk del i olika program och syftar till att under handledning ge den studerande träning i att självständigt och på ett vetenskapligt sätt lösa en uppgift. Arbetenas innehåll, resultat och slutsatser bör således bedömas mot denna bakgrund.

Table of contents

1. Abstract	4
2. Introduction	5
2.1. Biology and behaviour	5
2.2. Development of pig production.....	5
2.3. Legislation.....	5
2.4. The Commission and the Food and Veterinary Office.....	6
2.5. Tail biting	6
2.6. Tail docking	7
2.7. Manipulable material.....	7
3. Purpose and questions	7
3.1. Delimitations	7
4. Material and method.....	8
5. Results	8
5.1. FVO-reports	8
5.2. Answers from the Competent Authorities regarding the recommendations	18
5.3. Interview	18
6. Discussion	20
6.1. Compliance among the Member States.....	21
6.2. Issues with implementation.....	23
6.3. Actions to increase the compliance.....	23
6.4. Possible improvements.....	24
7. Conclusions	25
8. Populärvetenskaplig sammanfattning.....	26
9. Acknowledgements	27
10. References	27
11. Appendix	28
Appendix 1	29
Appendix 2.....	30
Appendix 3.....	31
Appendix 4.....	31
Appendix 5.....	33

1. Abstract

Tail biting behaviour is a major animal welfare issue in intense pig production, as well as an economic issue. To prevent the behaviour, tail docking is practised. It is a painful procedure where a part of or the whole tail is cut off.

There is a lot of research on the subject of tail biting, with a big variety of solutions to prevent the behaviour. Scientists are consistent about that the absence of manipulable material increases the risk for tail biting. Manipulable material works as an environmental enrichment and stimulates natural behaviours of the pig, such as investigation and rooting. It helps pigs to cope with the environment and reduces stress and frustration, triggers that can lead to tail biting.

The legal requirement regarding tail docking state that it shall not be practised on a routine and has been in force since the 1st of January 1994. It was strengthened in 2003 and now appears in Council Directive 2008/120/EC which codifies the earlier directives. The legal requirement now states that measures to prevent tail biting shall be taken before practising tail docking, measures such as changing inadequate management systems, changed environment and reduced stock densities.

Pigs shall also have access to a suitable material or object, to be able to perform natural behaviours and prevent tail biting and stereotypies. In the latest version of the directive on pigs this material was defined as straw, hay, wood, sawdust, mushroom compost, peat or a mixture of such.

The aim of this study was to investigate the current situation of compliance with the legal requirements in the directive on pigs, regarding the provision of manipulable material and the routine practice of tail docking. It was also to investigate actions to increase compliance among the Member States in the European Union. A descriptive analysis of available FVO-reports was used, together with written answers from the Competent Authorities and a qualitative interview with people at the Commission and the FVO.

The results of this report showed that 18 out of 28 Member States in the European Union do not comply with the legal requirement regarding the provision of manipulable material, and that 17 of the Member States do not comply with the legal requirement regarding the practice of tail docking. There has not been any actions such as sanctions to increase the compliance among the Member States.

These findings make an overall conclusion about the current issues with the compliance of the directive on pigs. There are no further intrinsic actions to increase compliance, due to a lack of responsibility among the involved parties, such as pig farmers, Competent Authorities and the Commission. Due to the lack of intrinsic action, it is an impossibility to conclude when full compliance will be fulfilled.

2. Introduction

Animal welfare is a subject that concerns a broad group of people all over the world. The interest has been increasing the last couple of years, even though we do not have the same connection to farming and animal production as before (Millman, 2009). That could be a reason why the debate about pig production in Swedish media was intensified prior to EU-election. The target group of this report is interested people with a background in ethology, animal welfare and legislation regarding this subject.

2.1. Biology and behaviour

The pig, *Sus scrofa*, is derived from the European wild boar (Ekesbo, 2011). Since the domestication of the pig, which took place in 8000-7000 B.C., morphology and physiology has been changed in some ways (Ekesbo, 2011). One example is the curly tail (Zonderland *et al.*, 2009; Ekesbo, 2011). The behaviour has however mostly not been changed (Ekesbo, 2011).

Important behaviours of the pig are foraging, rooting and exploring (EFSA, 2007; Ekesbo, 2011; Oostindjer *et al.*, 2011), behaviours which the snout is adapted for (Ekesbo, 2011).

Pigs are social animals and often perform social behaviours with conspecifics (Ekesbo, 2011). The author describes the social structure as complex, but aggressive behaviours among pigs are rarely performed in a well-functioning group.

To recognize other conspecifics pigs use olfactory, acoustic and visual signals (Ekesbo, 2011). Example of a visual recognition is the curled tail (figure 1) (Ekesbo, 2011), which indicates a healthy pig (Zonderland *et al.*, 2009).



Figure 1. A curly tail indicates a healthy pig.
Photo: Edman, 2014.

2.2. Development of pig production

The pig production has developed during the 20th century, with a radical change of management and housing systems in the 1950s to intensify and specify the production (Ekesbo, 2011). The breeding selection of the pig has been changed since then, and selection of today is basically based on growth, size, litter size and carcass characteristics (Ekesbo, 2011).

2.3. Legislation

The Member States of the European Union are required to obey the EU-legislation. Since the early 90s there have been several amended directives on pig production in the European Union. The Council Directive 91/630/EEC of 19 November 1991 laying down minimum standards for the protection of pigs entered into force on the 1st of January 1994. The legal requirement regarding tail docking stated that it shall not be practised on a routine (EEC 1991/630 Annex, Chapter II, Specific provisions for various categories of pigs III [4]). Pigs shall also have access to suitable material or objects, to be able to perform natural behaviours and prevent tail biting and stereotypies (EEC 1991/630 Annex, Chapter I [16]).

The legal requirements regarding manipulable material was strengthened in the Council Directive 2001/88/EC of 23 October 2001 amending Directive 91/630/EEC laying down minimum standards for the protection of pigs and the Commission Directive 2001/93/EC

of 9 November 2001 amending Directive 91/630/EEC laying down minimum standards for the protection of pigs. It applied to fattening pigs from the 1st of January 2003 (EC 2001/88 Article 2 [1]), and to sows and gilts from the 1st of January 2013 (EC 2001/88 Article 3 [9]). The transitional period of ten years were due to avoid drastic socioeconomic consequences in the European Union.

The Council Directive 2008/120/EC of 18 December 2008 laying down minimum standards for the protection of pigs is the latest version of directive on pigs, and codifies the earlier directives. Annex I, Chapter I (4) requires that all categories of pigs must have permanent access to a sufficient quantity of material to enable proper manipulation and investigation. The material was defined as straw, hay, wood, sawdust, mushroom compost, peat or a mixture of such, and shall not challenge the health of the pigs (EC 2008/120 Annex I, Chapter I [4]). The last emendation of the directive on pigs entered into force on the 10th of March 2009 (EC 2008/120 Article 14).

The amendments in EC 2001/88 and EC 2001/93, which now appear in EC 2008/120 codification Directive, prohibit routine tail docking. The EC 2008/120 Annex I, Chapter I (8) states that "Before carrying out [tail docking], other measures shall be taken to prevent tail biting ... taking into account environment and stocking densities. For this reason inadequate environmental conditions or management systems must be changed.". Before a farmer can lawfully tail dock he must have genuinely taken "other measures" to prevent tail biting and in particular must have changed "inadequate environmental conditions or management systems". According to the same legal requirement, farmers are also required to investigate injuries on other pigs before practising tail docking.

2.4. The Commission and the Food and Veterinary Office

The Food and Veterinary Office, FVO, is a part of the Commission which investigates the compliance with European Law among the Member States in the European Union (European Union, 2014b). The findings of the investigations are compiled in reports, together with conclusions and recommendations (European Commission, 2014c). Through these reports, the Commission is informed about the current situation of compliance, and is able to clarify or amend the legal requirements (European Commission, 2014c). It is also the Commission's role to ensure that the Member States incorporate European Law and to take actions when the legal requirements are not complied (European Commission, 2014d). The mission of the FVO is also to contribute a development of the European community policy and to develop effective control systems among the Member States in the European Union (European Commission, 2014b).

2.5. Tail biting

Tail biting is a complex and abnormal behaviour with several risk factors (EFSA, 2007; Sutherland *et al.*, 2009; Brunberg *et al.*, 2011). It is a redirected investigatory behaviour to the tails of conspecifics (Munsterhjelm *et al.*, 2009; Van de Perre *et al.*, 2011). An overall conclusion made by EFSA (2007) and Brunberg *et al.* (2011) is that tail biting is a distinct indication of poor animal welfare, both for the pigs that perform the behaviour and the pigs that gets bitten. The behaviour is triggered by frustration (EFSA, 2007), which can be induced by a poor environment (EFSA, 2007; Oostindjer *et al.*, 2011), feeding related hazards (Sutherland *et al.*, 2009; Oostindjer *et al.*, 2011) or heritability (EFSA, 2007; Munsterhjelm *et al.*, 2013a). A poor animal welfare endangers production, animal health and natural behaviours (Millman, 2009; Sutherland *et al.*, 2009).

There are several consequences of tail biting, such as pain, skin damage, infections (EFSA, 2007; Sutherland *et al.*, 2009), stress (Munsterhjelm *et al.*, 2013a) and spinal disorders (EFSA, 2007). These causes can lead to reduced growth (EFSA, 2007; Sutherland *et al.*, 2009), and in some cases carcass condemnation (EFSA, 2007).

2.6. Tail docking

Tail docking is practised on farms to prevent tail biting, and is a procedure where the whole tail or a part of it gets mutilated (figure 2) (Sutherland *et al.*, 2009). This is done in the early days of the life of the piglet (Sutherland *et al.*, 2009). Tail docking is a painful procedure (Sutherland *et al.*, 2009) and has a negative impact on the health of the piglet (Sutherland *et al.*, 2009; Scollo *et al.*, 2013). The original problems of the tail biting behaviour remain unsolved (Zonderland *et al.*, 2009).



Figure 2. Tail docked pigs. Photo: Staaf Larsson, 2007.

2.7. Manipulable material

Access to a manipulable material is a solution to reduce the risk of tail biting (EFSA, 2007; Statham *et al.*, 2011). It works as an environmental enrichment (Munsterhjelm *et al.*, 2009; Statham *et al.*, 2011), and is defined in EC 2008/120 Annex I, Chapter I (4) as straw, hay, wood, sawdust, mushroom compost and peat. Access to straw also offers pigs ability to perform play behaviours, and sows to perform nesting behaviours (Ekesbo, 2011). The provision of straw as an early life experience of the piglets affects them later in life (Oostindjer *et al.*, 2011). A recent project in the EU aimed to increase the knowledge about the provision of manipulable material to fattening pigs (EUWelNet, 2013).

3. Purpose and questions

The purpose with this report was to compile available FVO-reports to investigate the compliance of the Council Directive 2008/120/EC, Annex I, Chapter I (4 & 8) in the Member States of the European Union. The purpose was also to investigate how the Commission considers the results and what actions are taken to increase the compliance of the previous mentioned legal requirements. The following specific questions were put up:

1. How is the compliance of the Council Directive 2008/120/EC Annex I, Chapter I (4 & 8) in the Member States of the European Union?
2. If there are non-compliances, what are the reasons?
3. How does the Commission respond to the results of the FVO-reports?
4. What actions are taken to ensure compliance of the Council Directive on pigs in all Member States?

3.1. Delimitations

The delimitations of this report was to investigate subjects that refer to the Council Directive 2008/120/EC, Annex I, Chapter I (4 & 8), about the provision of manipulable material and routine practised tail docking. A further delimitation was to focus on fattening pigs within the geographical area of the European Union.

4. Material and method

The literature used in this report was 58 FVO-reports, answers from the Competent Authorities regarding the recommendations, scientific reports and a scientific review by EFSA. The material was used to get a comprehensive description of the current situation of compliance and research in the European Union.

The FVO-reports have been searched through the database of the FVO, on the 17th of March 2014. Key-words were “animal welfare”, “pig” and “on-farm”. Reports from 2003 or earlier were deliberately deselected to delimitate the data. The scientific reports have been searched through ProQuest, a database with scientific reports, with following key-words and results: “tail biting” and “fattening pigs” with a result of 14 matches, out of which six were chosen; “prevent” and “tail biting” with a result of 12 matches, out of which four were chosen; “pig”, “natural behaviour” and “environmental enrichment” with a result of eight matches, out of which two were chosen. The scientific reports that were deliberately deselected were written before 2009 or were considered as irrelevant to the subject. The scientific review by EFSA was chosen to get a comprehensive view of the scientific progress connected to the subject.

A descriptive analysis of official documents was used to get a relevant description of the current situation regarding the compliance with legal requirements in the Member States of the European Union. A qualitative interview by e-mail has been conducted. Participants were Bente Bergersen at the Commission and Terence Cassidy at the FVO. The questions that were asked are appended as Appendix 2-5.

5. Results

5.1. FVO-reports

The FVO-reports are declared as an eight digit number, where the first four digits (with a few exceptions) are the year the report was published. All reports are published by Directorat General – Health and Consumer Protection (European Commission, 2014e).

Austria

8049-2006: The routine practice of tail docking was widely accepted. The Competent Authorities were recommended to take action to reduce the routine practice of tail docking and to improve checklists. Further recommendations were to investigate “on farm”-actions to prevent tail docking and to document the use of manipulable material on farms where tail docking was practised.

2011-6096: Checklists were improved. A satisfying amount of manipulable material was not observed on the farms that were visited. Chains were accepted as a manipulable material by the Official Veterinary. It was recommended to ensure that all categories of pigs had access to proper manipulable material. Tail docking was not mentioned in the report.

Belgium

2009-8255: The Central Competent Authority did not provide the Competent Authorities with guidance of how the legal requirements were supposed to be complied. Tail docking was practised on a routine without actions to prevent it. A satisfying amount of manipulable material was not available for all categories of pigs. It was recommended to

ensure compliance regarding the provision of manipulable material and to prevent tail docking.

2011-6039: Chains and plastic toys were approved materials for satisfying the investigatory behaviour of the pig. Tail docking was practised on one of the farms that were visited. The farmer had an undated letter from a veterinary that actions had been taken to prevent tail docking but without success. Guidance with a scientific background was established, but not in use at the time of revision. No further actions to prevent tail docking had been taken. It was recommended to ensure provision of a suitable manipulable material to all categories of pigs and to prevent tail docking.

Bulgaria

2010-8383: Routine practised tail docking was accepted by the Competent Authorities. There was no evidence that there had been any investigation of how to improve the environment and housing systems to prevent tail docking. Manipulable material had only to be provided to pigs that showed aggressive behaviours. No recommendation regarding manipulable material or tail docking was given.

2012-6454: Official controls did not ensure compliance with the legal requirement of provision of manipulable material. No recommendation to ensure that the official controls checked if all categories of pigs had access to manipulable material was given. No on-farm inspections were made. Tail docking was not mentioned.

Czech Republic

2007-7232: There was no guidance of how to control the provision of manipulable material. Chains were accepted by the Central Competent Authority as a manipulable material. Tail docking was not mentioned in the report. There was no recommendation of the manipulable material.

2010-8384: Manipulable material was not provided in one farm, which was detected by the inspector and the farmer got a fine. The Competent Authorities was recommended to ensure that manipulable material was provided. Tail docking was practiced on a routine in the two farms that were visited. The Competent Authorities had not investigated if the farmers had taken sufficient actions to prevent tail docking. There were no recommendation of the routine practice of tail docking.

Croatia

No available reports online.

Cyprus

2009-8244: Tail docking was not observed in the farms that were visited. Manipulable material was only a legal requirement in mixed groups from different litters. It was recommended to ensure that all categories of pigs had access to manipulable material.

Denmark

2007-7238: Routine practice of tail docking was accepted. Manipulable material was provided as required.

2010-8392: Tail docking was practiced on a routine. It was not seen as non-compliance by the Official Veterinary, even if actions to prevent it had not been made. Danish legislation required that only half of the tail was docked. The Audit Team recommended the Competent Authorities to ensure that the Official Veterinarians investigated what actions

had been taken to prevent the routine practice of tail docking. Manipulable material was not available in a satisfying amount. No recommendation regarding manipulable material was given by the Audit Team.

Estonia

2005-7714: The legal requirement regarding manipulable material had not been implemented in a satisfying way, which were recommended to do. Tail docking was not mentioned in the report.

2009-8600 (General Audit): The Central Competent Authority had not provided the Official Veterinarians and the Authorised Veterinarians with appropriate guidance of how to control the legal requirement of preventing tail docking. The Central Competent Authority was recommended to provide sufficient guidance to the Official Veterinarians. Manipulable material was not mentioned.

Finland

2007-7329: The Competent Authorities did not detect the lack of a satisfying amount of manipulable material. No recommendation from the Audit Team regarding the manipulable material was given. Tail docking was not detected.

2009-8262: A satisfying amount of manipulable material was not available. The farms had problems with tail biting. No recommendation from the Audit Team regarding provision of manipulable material was given. Tail docking was not detected.

France

2006-8045: The inspectors did not remark on the lack of manipulable material, an issue that had been brought up earlier. No recommendation from the Audit Team regarding provision of manipulable material was given. Tail docking was practised on a routine in some farms. The Competent Authority in Somme, an area in France, did not indicate further investigation of “on-farm”-actions to improve the environment or housing system. The Audit Team recommended the Competent Authorities to ensure that other solutions had been tested before practising tail docking.

2010-8390: The three farms that were visited did practise tail docking on a routine. The Audit Team concluded that the prevention of routine practice of tail docking had not been taken seriously. There was no recommendation by the Audit Team to ensure compliance with the legal requirement regarding tail docking. Neither of the farms had a satisfying amount of manipulable material. The Competent Authorities and Central Competent Authority approved chains as a suitable manipulable material. There was no recommendation from the Audit Team to ensure that manipulable material was provided to all categories of pigs.

2012-6446: Neither tail docking nor manipulable material was mentioned.

Germany

2007-7236: A satisfying amount of manipulable material was not available. One farm recently had an inspection with no non-compliances, but did not comply with the legal requirement regarding manipulable material. There was no recommendation to ensure a satisfying amount of manipulable material to sows and gilts. Tail docking was not mentioned.

2008-7980: The legal requirement of manipulable material was not complied. It was recommended to ensure that pigs had access to manipulable material. The Competent Authorities had detected the lack of manipulable material earlier. Actions had been taken, which resulted in chains with plastic pipes in the end to offer a manipulable and deforming material. Tail docking was practiced on a routine. The Competent Authorities had taken actions to investigate other options but did not detect any technology that was suitable. It was recommended to take further actions to prevent tail docking and to ensure that all categories of pigs had access to manipulable material.

2012-6380: Tail docking was practised, but it differed between regions and farms. Multi-disciplinary actions to prevent tail docking had been taken and information of how to prevent tail docking had been given to the farmers. There was a lack of manipulable material in some farms according to the Competent Authority in Saxony, an area in Germany. The Non-compliance led to a decreased subsidy for the farmer. It was recommended to continue with measures to avoid tail docking.

Greece

2007-7244: The Central Competent Authority was recommended to provide the Competent Authorities with guidelines regarding the practice of tail docking, and to document statistics over the practice of tail docking in relation to pigs. Manipulable material was only provided in case of aggression among pigs. There was no recommendation from the Audit Team regarding provision of manipulable material.

2009-8243: Tail docking was practiced on a routine. Manipulable material was not provided in a satisfying way. The Competent Authorities were recommended to ensure that all categories of pigs had access to manipulable material and that measures had been taken before practising tail docking.

Hungary

8050-2006: Manipulable material was not provided in a satisfying amount. It was not detected at all times by the Official Veterinarians, due to lack of guidance of how to comply with the legal requirement. There was no recommendation from the Audit Team regarding the provision of manipulable material. Tail docking was not mentioned.

2011-6045: One fattening farm did not have tail docked pigs. It was however determined that tail docking was practiced on a routine in Hungary, and was seen as unavoidable. In one farm tail docking was not accepted by the inspector. The Competent Authorities were recommended to document procedures in changes of housing system and management to prevent tail docking. Straw was provided on the farms that were visited.

Ireland

8052-2006: Manipulable material was not available in one of the two farms that were visited, which the inspector did not remark on. The Competent Authorities were recommended to ensure that manipulable material was provided to sows and gilts. Tail docking was not mentioned in the report.

Italy

7636-2005: The two farms that were visited did not have a satisfying amount of manipulable material, due to blocking of the manure handling systems. They provided the pigs with wooden pieces. The Competent Authorities were recommended to ensure that sows and gilts had access to manipulable material. The Central Competent Authority

should provide the Competent Authorities with better guidance of how to carry out inspections.

2010-8388: Tail docking was practised. The Competent Authorities could not declare which veterinary who had given the recommendations of tail docking, and therefore it could not be concluded whether satisfying actions had been taken or not. The Audit Team concluded that they had not taken satisfying actions to prevent tail docking. Manipulable material, such as wooden pieces, tyres and chains, were provided at some occasions in one farm. The Official Veterinary thought that it only had to be provided to aggressive pigs. The Audit Team recommended the Central Competent Authority to provide inspectors with guidance of provision of manipulable material and to ensure prevention of tail docking.

2011-6048: The Official Veterinary was aware of the lack of manipulable material in one farm, but did not take any further actions. A research project about manipulable material was about to start at the time of the revision. Tail docking was practised on a routine in the integrated farm that was visited. According to the private veterinarian the farmer had taken actions but without success. The fattening farm received tail docked pigs. The Audit Team recommended further actions to prevent the practice of tail docking and to provide inspectors with sufficient guidance regarding suitable material for investigation and manipulation.

Latvia

2009-8271: No pig farms were visited during the revision. Neither tail docking nor manipulable material was mentioned in the report.

2012-6525: No pig farms were visited. Neither tail docking nor manipulable material was mentioned in the report.

Lithuania

7306-2004: Information about how to prevent the practice of tail docking was not available. The Competent Authorities were recommended to ensure prevention of tail docking.

8046-2006: Only farmers with a permission from the Competent Authorities could use the routine practice of tail docking. One of the two farms that were visited did not practise tail docking on a routine. The other farm had taken actions to prevent tail docking but without success. Manipulable material was provided to all categories of pigs. There was no recommendation regarding the practice of tail docking.

2009-8252: Manipulable material was provided. Tail docking was not mentioned in the report.

2012-6526: Tail docking was not practised. Manipulable material was provided.

Luxembourg

2010-8385: Tail docking was practised on a routine in both farms that were visited during the revision, without any investigation of measures to prevent it. A satisfying amount of manipulable material was not provided. There were no recommendations regarding provision of manipulable material or the routine practice of tail docking.

Malta

2009-8270: Manipulable material was not available in a satisfying amount, without any recommendation from the Audit Team. Tail docking was not mentioned in the report.

2010-8386: Neither tail docking nor manipulable material was mentioned in the report.

Netherlands

7512-2005: Tail docking was practiced on a routine. According to the Central Competent Authority it was difficult to avoid tail docking and to measure environmental enrichment. The Central Competent Authority was recommended to achieve further development to reduce the routine practice of tail docking, and to advise the farmers to prevent tail docking. According to the Central Competent Authority 6% of the pig farmers did not comply with the legal requirement of manipulable material. Chains were accepted as a manipulable material, which a majority of the farmers used. The Competent Authorities were recommended to continue with research of how to prevent tail docking and to provide farmers with information about environmental enrichment and how to prevent tail docking.

2012-6376: No pig farms were visited. Neither tail docking nor manipulable material was mentioned in the report.

Poland

7638-2005: Manipulable material was not provided to the pigs on the farms that were visited. One farm had chains, which were approved by the inspector. Tail docking was practiced on a routine. The Competent Authorities were recommended to provide inspectors and farmers with guidance of how to comply with the legal requirements regarding tail docking and manipulable material.

2010-8387: Plenty of straw was provided to all categories of pigs in the two farms that were visited. One of the farms practised tail docking on a routine, without actions to prevent it. No recommendation was given to ensure compliance with the legal requirement of tail docking.

2011-6049: No pig farms were visited. Neither tail docking nor manipulative material was mentioned in the report.

Portugal

7544-2005: The recommendation from the previous report (1022/1999) to investigate how to reduce the practice of tail docking had not been taken into serious action. There was no satisfying guidance of how to comply with the legal requirement of the practice of tail docking. The implementation regarding the legal requirement of manipulable material was not correct. The Central Competent Authority's answer was that it was difficult to implement considering hygienic conditions. The Competent Authorities were recommended to ensure that actions to comply with the legal requirements regarding tail docking and environmental enrichment were taken.

2009-8242: Manipulable material was not provided for all categories of pigs. There had been a misunderstanding of when the legal requirements entered into force due to insufficient guidance from the Central Competent Authority. There was no recommendation regarding the provision of manipulable material. Tail docking was not mentioned in the report.

2011-6052: Manipulable material was not provided to all categories of pigs, and actions to increase compliance were absent. There was no recommendation regarding the provision of manipulable material. Tail docking was not mentioned.

Romania

2010-8389: The two farms that were visited practised tail docking on a routine without investigating actions to prevent it. Both farms did not comply with the legal requirement of manipulable material to all categories of pigs. Recommendations remained from 2007 and 2009, but with no further specification in the report from 2010. There was no recommendation on the practice of tail docking.

2012-6374: No pig farms were visited. Neither tail docking nor manipulable material was mentioned in the report.

Slovakia

8047-2006: Tail docking was practised, but with previous investigation and action to prevent it. A sufficient amount of manipulable material was provided to almost all categories of pigs, except for one building on a farm where the Official Veterinary did not record the non-compliance. No recommendations regarding manipulable material or tail docking were given.

2011-6053: Plenty of manipulable material was provided to all categories of pigs in one of the farms that were visited. On the other farm chains and plastic buckets were provided, and approved by the Official Veterinary. No tail docking was observed. The Audit Team recommended to ensure access to manipulable material for all categories of pigs.

Slovenia

2007-7335: Tail docking was practised in one of the two farms that were visited. The Official Veterinary did not check if sufficient actions to prevent it had been taken. Manipulable material was provided in some pens on the two farms that were visited. Plastic objects were available, which the Official Veterinary approved. No recommendations were given.

2009-8241: The provision of suitable manipulable material had not improved since the previous report. No recommendation regarding manipulable material was given. Tail docking was not mentioned.

2012-6375: The Official Veterinary detected non-compliances such as use of plastic bags as a manipulable material. Manipulable material was provided in some pens. The Audit Team concluded that the legislation was implemented in a satisfying way. Tail docking was not mentioned in the report.

Spain

No reports regarding the implementation of the Council Directive EC 2008/120 on pigs were available online.

Sweden

2007-7336: Neither tail docking nor manipulable material was mentioned.

2010-8391: Tail docking was not practised. Three of four farms had enough with manipulable material. Problems with tail biting were observed in the farm that did not

provide a sufficient amount of manipulable material to all categories of pigs. The inspectors would issue a decision to force the farmer to take actions against tail biting.

United Kingdom

2006-8044: The Competent Authorities had no guidance regarding suitable material for investigation and manipulation, which led to an insufficient control where plastic materials were accepted. Wooden logs covered with faeces were also accepted by the inspectors. The Audit Team recommended the Competent Authorities to provide inspectors with sufficient guidance regarding the legal requirement of manipulable material.

2009-8268: One farm in Scotland practised tail docking, but had a written attestation issued by a local veterinarian. There was no recommendation regarding tail docking. Manipulable material was not mentioned in the report.

Table 1. The compliance with the EC 2008/120 Annex I, Chapter I (4 & 8), regarding the provision of manipulable material and the practice of tail docking, in the Member States of the European Union.

Y: does comply with the legal requirement

N: does not comply with the legal requirement

NI: no information

Member State	Compliance with the legal requirement of manipulable material	Compliance with the legal requirement of tail docking	Latest revision
Austria	N	N	2011
Belgium	N	N	2011
Bulgaria	N	N	2012
Czech Republic	N	N	2010
Croatia	NI	NI	-
Cyprus	N	Y	2009
Denmark	N	N	2010
Estonia	N	N	2008
Finland	N	Y	2009
France	N	N	2010
Germany	Y	N	2012
Greece	N	N	2009
Hungary	Y	N	2011
Ireland	N	NI	2006
Italy	N	N	2011
Latvia	NI	NI	2012
Lithuania	Y	Y	2012
Luxembourg	N	N	2010
Malta	N	NI	2010

Netherlands	N	N	2012
Poland	Y	N	2011
Portugal	N	N	2011
Romania	N	N	2012
Slovakia	N	Y	2011
Slovenia	Y	N	2012
Spain	NI	NI	2008
Sweden	Y	Y	2010
United Kingdom	Y	Y	2009

Table 2. Compliance of the legal requirement regarding the provision of manipulable material (EC 2008/120 Annex I, Chapter I [4]), compilation of table 1.

	Member States	Percentage
Do comply	7	25 %
Do not comply	18	64 %
No information	3	11 %
Total	28	100 %

Table 3. Compliance of the legal requirement regarding the practice of tail docking (EC 2008/120 Annex I, Chapter I [8]), compilation of table 1.

	Member States	Percentage
Do comply	6	21 %
Do not comply	17	61 %
No information	5	18 %
Total	28	100%

The results from the FVO-reports show that seven out of 28 Member States complies with the legal requirement regarding the provision of manipulable material to all categories of pigs (table 1). 18 Member States do not comply, corresponding to 64 % of the Member States (table 2). The compliance is unknown in three Member States.

The legal requirement regarding the practice of tail docking is complied to in six Member States (table 1). 17 Member States do not comply, corresponding to 61 % of the Member States (table 3). The compliance is unknown in five Member States.

5.2. Answers from the Competent Authorities regarding the recommendations

The Competent Authorities in Denmark did respond to the recommendation to prevent the practice of tail docking, from the report 2010-8392. They concluded that it was an impossibility to reduce the practice of it, due to several reasons. For one, the production systems were not able to handle manipulable material. Furthermore, the breeding farms, where tail docking was practised, were not in charge over conditions on fattening farms to where piglets were sold. Therefore it was an impossibility to avoid tail docking, since research showed that farmers with fattening pigs did not want to buy pigs that had not been tail docked because of the risk of tail biting. The Ministry of Justice in Denmark concluded that the sale flow from breeding farms to fattening farms would be negatively affected if there would be a requirement not to practise tail docking. The Ministry of Justice suggested a further discussion with the Commission. They would investigate the amount of manipulable material provided to pigs.

Due to the recommendations in the report 2011-6039, the Competent Authorities in Belgium answered that they were working to improve guidance of how to prevent tail docking and how to comply with the legal requirement regarding the provision of manipulable material. It was about to be launched in 2012.

The Competent Authorities in the Czech Republic answered, due to the recommendation in the report 2010-8384, that they would ask breeders to focus on other actions than tail docking to reduce tail biting, and therefore comply with the legal requirement. As a response to the recommendation of the report 2011-6045 from Hungary, the Competent Authorities answered that they would implement the legal requirement of measures to prevent tail docking in the national legislation. Due to the recommendation from the report 2011-6053, the Competent Authorities in Slovakia stated that they would provide training courses for the inspectors to increase the knowledge about a satisfying amount of manipulable material.

The Competent Authorities in Ireland and Luxembourg chosed not to mention actions to increase compliance with the legal requirements.

5.3. Interview

Bente Bergersen, the Policy Officer of Animal Welfare at the Commission, answered my questions on the 15th of April, 2014. She also answered the questions sent to President Barroso, Commissioner Borg and Commissioner Ciolos.

Bente Bergersen highlighted that it is primarily the Member States role to implement and enforce the requirements of the EU-legislation. The Animal Welfare Strategy 2012-2015 identified lack of enforcement among the Member States as one of the main problems. For

this reason the Strategy included measures of how to address problems of non-compliances and how to improve the enforcement among the Member States.

One measure was to develop guidelines on how to comply with the legal requirements of EC 2008/120 Annex I, Chapter I (4 & 8). A first draft of guidelines was presented to the Member States and other stakeholders in a conference in Brussels on 11 March 2014. These guidelines will cover the topics provision of manipulable material and avoidance of tail docking.

Bente Bergersen declared that it would be of importance to achieve a full compliance of the legal requirements across EU as soon as possible and that the Commission was working to improve compliance among the Member States. Regarding the need for further research she referred to previous EFSA opinions on pig welfare, as EFSA generally highlights in which areas research is lacking, for example the prevention of tail docking.

On the 6th of May Bente Bergersen answered my follow-up questions. There was no ongoing infringement procedure against any Member State, regarding the routine practice of tail docking. As stated in the previous answer, it is primarily the Member States mission to implement the legal requirements and to ensure compliance. Therefore, it is impossible to predict when a full compliance will be achieved.

Terence Cassidy, head of the Animal Welfare Group at the FVO, answered on the 16th of April, 2014. He stated that there are technical feasibilities to enforce the legal requirements regarding manipulable material, because fully slatted floors to sows and gilts are allowed during farrowing. With the current pig farming system it was difficult to achieve progress regarding the provision of manipulable material and avoidance of tail docking.

Regarding the question why the FVO does not give recommendations even if non-compliances were detected on the farms, Terence Cassidy states that it was the control systems that were audited by the FVO and not the farms that are visited during the revision. Therefore, it was not always recommended by the Audit Team even if non-compliances were detected by the Audit Team.

The revisions also have a defined scope to control, which was the reason why previous recommendations were not inspected on later revisions. The later reports had other topics, since it was not useful to repeat the same audit as before.

Terence Cassidy stated that they prefer to work with the Member States rather than to take them to court. It has been some infringement proceedings initiated against some Member States who are not complying with the legal requirements regarding group housing of sows.

Experts from the Member States had been convened to look at possible solutions to prevent tail biting with other measures than tail docking. FVO had instigated the Competent Authorities to pay more attention to these measures and research to find solutions to prevent tail docking. EFSA has also been consulted on the issue. The FVO-audits found widespread non-compliances on the issue of tail docking, which indicated that the Member States have a huge job to achieve compliance with the legal requirements. Guidelines regarding the practice of tail docking has been worked with, and will be a reassessment to the Competent Authorities. It will hopefully lead to a progressive implementation of the tail docking requirement, so that the routine practice will be reduced.

On the 25th of April, 2014, Terence Cassidy answered my follow up-questions. The technical feasibilities was a common excuse from the Competent Authorities to deviate

from prevention of tail docking and provision of manipulable material to all categories of pigs, even if Terence Cassidy does not agree with the Competent Authorities. Farmers did not practise tail docking if they did not feel they had to. Regarding the technical feasibilities, Terence Cassidy writes that it is more detailed in the archives from 2001.

Terence Cassidy stated that the FVO-reports focus on the Competent Authorities, not specific farms. That was why deficiencies in earlier reports were not mentioned or investigated during later revisions.

6. Discussion

There is a lot of research available about tail biting and the prevention of it (EFSA, 2007; Sutherland *et al.*, 2009; Zonderland *et al.*, 2009; Brunberg *et al.*, 2011; Oostindjer *et al.*, 2011; Statham *et al.*, 2011; Van de Perre *et al.*, 2011; Scollo *et al.*, 2013; Zwicker *et al.*, 2013). The majority of the studies used in this report has been focused on the provision of manipulable material due to the aim of this report. Research also shows that feeding strategies (Zwicker *et al.*, 2013), maternal behaviour (figure 3) and housing systems (Oostindjer *et al.*, 2011) affect tail biting behaviour. Even though there is a big quantity of research available, Bracke *et al.* (2013) found that farmers in the Netherlands want more research before taking other measures than tail docking to prevent tail biting.



Figure 3. Maternal behaviour and an early life experience of manipulable material affect the tail biting behaviour. Photo: Viktorsson Lindh, 2013.

Tail biting is a complex behaviour, with several triggers (Sutherland *et al.*, 2009). It is mentioned as a major animal welfare hazard, both according to farmers in the Netherlands (Bracke *et al.*, 2013) and to EFSA (2007), which provides the Commission with research. These findings, together with the big extent of research to prevent tail biting, indicates a high importance to extinguish tail biting behaviour among pigs.

Tail docking is a solution to prevent tail biting (Sutherland *et al.*, 2009; Scollo *et al.*, 2013), and is practised in 61 % of the Member States in the European Union (table 3). It is a procedure with several health issues (Munsterhjelm *et al.*, 2013a; Munsterhjelm *et al.*, 2013b; Scollo *et al.*, 2013), which indicates that it should not be practised to ensure a good animal health and welfare. Since it has been a legal requirement since the 1st of January 1994 not to tail dock, one can assume that it should not be practised. It is interesting that research has recently been done to find the best way to tail dock. Sutherland *et al.* (2009) investigated different methods to practise tail docking, but the study also included consequences to tail biting behaviour. Since the study had a large test group and other factors were controlled for, it can be applied when investigating tail biting behaviour.

There are other solutions to prevent tail biting, such as to satisfy the investigatory behaviour of the pig with manipulable material (Zwicker *et al.*, 2013). According to EEC 1991/630 Annex, Chapter I (16), material or objects that offer pigs natural behaviours have to be provided to prevent stereotypies. Research show different results, depending on how the study is performed. Statham *et al.* (2011) did not find a significant difference between enriched and unenriched pens. One can assume this depends on the sawdust that was used

in unenriched pens, which is defined as a manipulable material in EC 2008/120 Annex I, Chapter I (4). Statham *et al.* (2011) used a large number of pigs to study the provision of manipulable material at different stages in life. Environmental factors between the test groups were controlled for, which gives a comprehensive result of the study.

Research are consistent about the fact that absence of manipulable material has a negative impact on pigs (Munsterhjelm *et al.*, 2009; Oostindjer *et al.*, 2011; Van de Perre *et al.*, 2011; Munsterhjelm *et al.*, 2013a; Munsterhjelm *et al.*, 2013b; Zwicker *et al.*, 2013). It results in frustration and stress (Oostindjer *et al.*, 2011), which induce the tail biting behaviour (Munsterhjelm *et al.*, 2009; Van de Perre *et al.*, 2011). The risk of tail biting increases with age (Statham *et al.*, 2011), with the most critical point at 14 weeks (Scollo *et al.*, 2013). These findings could be an explanation to why tail biting occurs. In the pig production chain, when pigs are moved from the breeding farm to the fattening farm, it could lead to a change in management system. If there is an absence of manipulable material in the new environment, it could induce the tail biting behaviour.

The differences among the studies indicates that there are several factors to take into account when providing pigs with manipulable material to decrease tail biting behaviour. The frequency and amount of material is of high importance (Statham *et al.*, 2011) as well as the structure of the material (Scollo *et al.*, 2013; Zwicker *et al.*, 2013). When pigs accustomize to the material, the investigatory behaviour is redirected (Van de Perre *et al.*, 2011; Zwicker *et al.*, 2013). It can be concluded that there is a lot of effort to establish a well-working system to prevent tail biting behaviour, when using manipulable material as a solution. This could be a reason to the widely spread practice of tail docking, and the lack of compliance regarding manipulable material (table 2). It could be further investigated to optimize the use of manipulable material as a method to prevent tail biting.

Tail biting outbreaks are sometimes difficult to detect in an early stage (Munsterhjelm *et al.*, 2013b). Zonderland *et al.* (2009) suggest that watching the tail posture can be an early detection of tail biting. The study was based on a large number of animals, but there is not much other research on this subject. If the practice is applied in pig production practice, the absence of research should be taken into consideration.

6.1. Compliance among the Member States

As previously mentioned, the results from the FVO-reports show that seven out of 28 Member States complies with the legal requirement regarding the provision of manipulable material to pigs. 18 out of 28 do not comply with the legal requirement, and the compliance is unknown in three Member States (table 2).

During the revisions where non-compliances were detected, all Member States did not get recommendations from the Audit Team to ensure compliance. Austria, Belgium, Czech Republic, Cyprus, Estonia, Greece, Ireland, Italy, Netherlands, Slovakia and the United Kingdom got a recommendation to ensure the provision of manipulable material to all categories of pigs. Bulgaria, Denmark, Finland, France, Luxembourg, Malta and Portugal did not get a recommendation.

Chains, plastic toys or tyres were sometimes used in Member States as a manipulable material. That kind of enrichment does not offer an investigatory behaviour, since pigs get accustomed to it and the enrichment loses its function (Munsterhjelm *et al.*, 2009; Van de Perre *et al.*, 2011). Although the same enrichment were used, the recommendations differed between the Member States. The Competent Authorities in Austria, Belgium, Italy, Slovakia and the United Kingdom approved chains, plastic toys or tires as a manipulable material, and did get a recommendation from the Audit Team to ensure that

manipulable material was provided to all categories of pigs. The same enrichment was approved by the Competent Authorities in France and Germany, but with no recommendation from the Audit Team. The farm in Germany had a deformable pipe in the end of the chain, which could have been the reason why this was approved by the Audit Team. A plastic pipe is possible to deform, even if it can be discussed whether it provides enough manipulation and investigation.

Recommendations from earlier revisions proves that recommendations differ between Member States. When chains, plastic toys or tyres were used as manipulable material, Netherlands, Poland and Slovakia were recommended to ensure compliance with the legal requirement regarding manipulable material. Slovenia and the Czech Republic did not get a recommendation.

Regarding the practice of tail docking, the results from the FVO-reports show that six Member States do comply with the legal requirement of EC 2008/120 Annex I, Chapter I (8). There is no information about the compliance in five and it is practised on a routine in 17 Member States (table 1). Of the 17 Member States that were not complying with the legal requirement, ten Member States got a recommendation from the Audit Team to ensure compliance. Seven Member States did not get a recommendation, which is remarkably and should be further investigated.

During the revision in Bulgaria 2010, the Audit Team found that the practice of tail docking was accepted by the Competent Authorities, without investigating if the farmer had taken satisfying measures to prevent the practice of it. One reason could be that Bulgaria joined the European Union in 2007 (European Union, 2014), one of the latest Member States. The same result was found during a revision in France, report 2010-8390, where the Audit Team concluded that the Competent Authorities had not taken the issue of routine practised tail docking seriously. Even though this was concluded, there was no recommendation from the Audit Team. The recommendations should not differ, but they do.

In the last reports from Austria, Bulgaria, Estonia, France, Ireland, Malta, Netherlands, Poland, Portugal, Romania and Slovenia tail docking is not mentioned. The reason is probably due to other scopes to investigate (T. Cassidy, FVO, personal message, 16 April 2014). This could however lead to lack of actions to increase compliance, when previous recommendations are not monitored.

Why there are differences between recommendations to Member States in the European Union is a question which cannot be answered based on the data in this report. It can be concluded that it differs, and should be a question for further investigation to eliminate differences in assessments and measures from the Audit Team during revisions. The outcome of further investigation should be a cohesive assessment during revisions in the Member States of the European Union.

Croatia is the most recent Member State to join the European Union (European Union, 2014). That is probably the reason why there were no reports available online. The reports from the revisions in Latvia during 2009 and 2012 do not mention manipulable material or tail docking, probably due to other scopes to investigate, as mentioned by Terence Cassidy at the FVO (personal message, 16 April 2014). There were no on-farm reports from Spain available online. Therefore, it is impossible to conclude whether Croatia, Spain and Latvia comply with the legal requirements regarding the practice of tail docking and the provision of manipulable material.

The descriptive analysis of FVO-reports was used to give a comprehensive overview of the compliance. Even if some reports dates back to 2004, one can assume that the current situation has not been changed much, due to the result from Bracke *et al.* (2013) who found that 66 % of the farmers had not prevented the practice of tail docking. The answers from the Competent Authorities and the interviews could also be a confirmation of the current situation.

6.2. Issues with implementation

The Competent Authorities of the Member States find it in many cases difficult to implement and ensure compliance with the legal requirements of both tail docking and manipulable material. It could be due to technical difficulties, hygienic conditions or an absence of other solutions.

The reason why manipulable material is not provided in a satisfying way is due to “technical feasibilities” (T. Cassidy, FVO, personal message, 16 April 2014), and is a common excuse among the Competent Authorities in the Member States. One can assume that it is difficulties with manipulable material in the manure handling systems, due to the use of fully slatted floors to sows and gilts during farrowing (T. Cassidy, FVO, personal message, 16 April 2014) and fattening pigs (EC 2008/120 Article 3 [2b]). Difficulties with manipulable material in the manure handling systems is stated by the Competent Authorities in Italy, report 7636-2005, and by the Competent Authorities in Denmark in the answer to the recommendations of report 2012-8392.

The results of this report show, nevertheless, that seven Member States are able to comply with the legal requirement regarding manipulable material. It shows that it is possible to comply with the legal requirement and one could argue that the compliance with the directive on pigs should be more fulfilled.

6.3. Actions to increase the compliance

Bente Bergersen at the Commission states that it is primarily the Member States’ mission to implement the legal requirements in a satisfying way, and to take actions to comply with those (personal message, 15 April 2014). Therefore it has not been any sanctions against Member States who does not comply with the legal requirements. The Animal Welfare Strategy 2012-2015 was an action to discuss the current issues in pig production in the Member States and to provide the Competent Authorities with guidance of manipulable material (B. Bergersen, the Commission, personal message, 15 April 2014). Terence Cassidy at the FVO prefers to work together with, rather than to force, the Member States to increase the compliance with the legal requirements (personal message, 16 April 2014), as one can consider as a good intention. When there is no progress from the Competent Authorities to increase compliance, one can conclude that it should be more intrinsic actions to committ the Member States to increase compliance. Such actions could be infringement proceedings and sanctions, issued from the Commission.

With the current pig farming system it is difficult to achieve progress, regarding the provision of manipulable material and avoidance of tail docking (T. Cassidy, FVO, personal message, 16 April 2014). The results of this report show that seven Member States are able to comply with the legal requirement regarding the provision of manipulable material (table 2), and six Member States with the legal requirement regarding the practice of tail docking (table 3). It can be concluded that it is not an impossibility to comply with the legal requirement. A commitment to increase compliance could lead to a refurbishment of inadequate housing systems, and an investment in development for

farmers. Inadequate housing systems should however already be changed (EC 2008/120 Annex I, Chapter I [8]).

The Competent Authorities in Denmark stated that it was impossible to reduce the practice of tail docking, since breeding farmers were not able to change the environmental conditions on fattening farms to where the pigs were sold to. If the Competent Authorities were more forceful to increase the compliance with the legal requirement among farmers, it would be possible to find solutions.

Recommendations remain between revisions in Germany (2008-7980 and 2012-6380), Greece (2007-7244 and 2009-8243) and Italy (2010-8388 and 2011-6048). Those findings, together with the conclusion from the Audit Team that France had not taken the recommendation to prevent tail docking seriously, and that 66% of farmers in the Netherlands have not tried to prevent tail docking (Bracke *et al.*, 2013) in opposition to the recommendation from 2005, indicates that the Competent Authorities are not taking intrinsic actions to increase compliance with the legal requirement regarding the practice of tail docking. These findings should be considered by the Commission when assuming that the Competent Authorities will increase compliance without any force.

Bracke *et al.* (2013) performed a telephone interview research with 520 participant pig farmers. The farmers had an overall negative attitude to prevent tail docking, and they preferred if colleagues did not take actions to prevent the practice of it. Tail docking was seen as necessary to prevent tail biting (Bracke *et al.*, 2013). This contradicts the statement that farmers are practising tail docking only when it is necessary (T. Cassidy, FVO, personal message, 25 April 2014). The negative attitude indicates that actions will not be voluntarily taken by farmers, and that information about alternative measures to prevent tail biting has not been provided to farmers in a satisfying way.

Since the results from revisions in the Netherlands are similar to the results in other Member States, the study from Bracke *et al.* (2013) could be applied to get insights of the attitude of farmers in other Member States. Bracke *et al.* (2013) did however not include farmers who had less than 100 sows. Since tail biting is a problem in intensified pig production (Munsterhjelm *et al.*, 2013b), the results could have differed if smaller farms were included.

Before practising tail docking, a change of environment or management system should be done (EC 2008/120 Annex I, Chapter I [8]). Changing management system is an investment, which might not always be considered due to economic costs. A reduced stock density shall also be considered before practising tail docking. Since a reduced stock density reduce the profits, that could be a reason to the lack of actions to prevent tail docking.

These findings show that the Council Directive on pigs are not fulfilled. It should lead to further actions to ensure compliance among the Member States of the European Union. An increased compliance would lead to an improvement in animal health and welfare, but could also have a negative economic impact on the pig production in the Member States of the European Union. An increased transparency in Member State compliance may affect consumer attitudes and preferences.

6.4. Possible improvements

Possible errors in this report could be human errors, such as different knowledge and perception of the people performing the revisions or my analysis of the reports, even

though it has been systematic. Since some reports have not been available for my research it might result in a possible error, as would the fact that some reports dates back to 2004. Some answers from the Competent Authorities regarding recommendations from the Audit Team were written in the native language, which led to eliminate them. The interview of people on the Commission included one person, Bente Bergersen, instead of the supposed four which would have led to a more comprehensive result. To eliminate errors of an incorrect citation, Bente Bergersen and Terence Cassidy have had an opportunity to comment the contents of the interviews.

7. Conclusions

The results of this report show that the compliance of the Council Directive 2008/120/EC Annex I, Chapter I (4 & 8) is not satisfactory in the majority of the Member States in the European Union. Tail docking is practiced on a routine in 17 of 28 Member States, and is in those Member States seen as necessary due to absence of other measures to prevent tail biting. Regarding the provision of manipulable material 18 of 28 Member States do not comply with the legal requirement.

Based on the results, following statements can be concluded:

- Compliance with the Council Directive on pigs is not fulfilled
- Recommendations differ between the Member States
- There is a lack of responsibility and intrinsic action among involved parties

As an overall conclusion, based on the results of this report, there are problems with the compliance with EC 2008/120 Annex I, Chapter I (4 & 8), and that non-compliances are not taken seriously enough by neither of the involved parties to ensure compliance. Due to the lack of intrinsic action it is an impossibility to conclude when full compliance will be fulfilled.

8. Populärvetenskaplig sammanfattning

Djurvelfärd är ett ämne som allmänheten har fått ett ökat intresse för under de senaste åren. I grisproduktion idag är svansbitning ett vanligt förekommande välfärdsproblem. Svansbitning är ett onormalt beteende, där grisens naturliga utforskningsbeteende omriktats mot andra grisars svansar. Det som utlöser beteendet är frustration, ofta till följd av en olämplig djurmiljö.

För att förebygga svansbitning tillämpar grisproducenter svanskupering, ett ingrepp där hela eller en del av svansen klipps av. Ett annat sätt att förebygga svansbitning är att erbjuda tillräckligt med manipulerbart material för att tillfredsställa grisens utforskningsbeteende. En bredare repertoar av naturliga beteenden ökar möjligheten att hantera den stress och frustration som kan uppkomma då djurmiljön inte är optimal.

I EU är alla medlemsländer tvugna att följa den lagstiftning som finns. Sedan den 1 januari 1994 har det varit förbjudet att använda sig av rutinmässig svanskupering. Det har även varit lagstiftat sedan den 1 januari 1994 att grisar ska ha möjlighet att bete sig naturligt samt att de ska ha tillgång till lämpligt material eller föremål att sysselsätta sig med.

Syftet med studien var att undersöka efterlevnaden av grisdirektivet med avseende på tillgång till manipulerbart material och användandet av rutinmässig svanskupering. Vidare var syftet att undersöka vilka åtgärder som tagits för att öka efterlevnaden av tidigare nämnda paragrafer. En deskriptiv analys av tillgängliga FVO-rapporter samt myndigheternas svar användes, samt en kvalitativ intervju via mail med Bente Bergersen på EU-kommissionen och Terence Cassidy på FVO.

Resultaten visar att 18 av 28 medlemsländer bryter mot gällande krav för manipulerbart material och att 17 av 28 medlemsländer bryter mot användandet av rutinmässig svanskupering. Trots att det under flera år har funnits rekommendationer att åtgärda dessa överträdelser kvarstår rekommendationer utan vidare åtgärder. Vidare visar resultaten att rekommendationer skiljer sig mellan medlemsländer, något som borde utredas för att uppnå ett samstämt utförande av revisioner i Europeiska Unionen.

Sammanfattningsvis finns det paragrafer i grisdirektivet som inte uppfylls. Inblandade parter, så som grisproducenter, myndigheter och EU-kommissionen, vill inte ta något fullt ansvar för att öka efterlevnaden. Då dessa överträdelser verkar vara allmänt accepterade, kan man heller inte dra några slutsatser om när en fullständig efterlevnad kommer att uppnås.

9. Acknowledgements

I want to thank the people who made this report possible. Thanks to Bosse, my supervisor, for inspiration and support. Thanks to the lecturers on the programme, who have motivated and engaged me in this subject. Thanks to Terence Cassidy, for participating in the interview and assisting with information about the FVO-reports. Thanks to Bente Bergersen, for participating in the interview. Thanks to Birgitta Staaf Larsson, for inspiration and photos. Thanks to Peter Stevenson, for comments on the language and content. Thanks to Vibe Lund at the FVO, for assisting with information about the FVO-reports. Thanks to my dad who have made me realize the importance of exploring the world outside the boundaries of our country. Thanks to my friends, who cherish and support me.

10. References

- Bracke, M. B. M., De Lauwere, C. C., Wind, S. M. M. & Zonerland, J. J. 2013. Attitudes of Dutch Pig Farmers Towards Tail Biting and Tail Docking. *Journal of Agricultural and Environmental Ethics*. 26, 847 – 868.
- Brunberg, E., Wallenbeck, A. & Keeling, L. J. 2011. Tail biting in fattening pigs: Associations between frequency of tail biting and other abnormal behaviours. *Applied Animal Behaviour Science*. 2011, 18 – 25.
- Commission Directive 2001/93/EC of 9 November 2001 amending Directive 91/630/EEC laying down minimum standards for the protection of pigs
- Council Directive (EEC) 91/630 of 19 November 1991 laying down minimum standards for the protection of pigs
- Council Directive (EC) 2001/88 of 23 October 2001 amending Directive 91/630/EEC laying down minimum standards for the protection of pigs
- Council Directive (EC) 2008/120 of 18 December 2008 laying down minimum standards for the protection of pigs
- Edman, F. 2014.
- EFSA, 2007. The risks associated with tail biting in pigs and possible means to reduce the need for tail docking considering the different housing and husbandry systems. *The EFSA Journal*. 611, 1 – 13.
- Ekesbo, I. 2011. Swine (*Sus scrofa*). In: *Farm animal behaviour: characteristics for assessment of health and welfare*. Ed. Kate Hill. Cambridge, Cambridge University Press.
- European Commission, 2014a. http://ec.europa.eu/food/fvo/index_en.cfm, used 2014-05-05
- European Commission, 2014b. http://ec.europa.eu/food/fvo/what_en.htm, used 2014-05-05
- European Commission, 2014c. http://ec.europa.eu/food/fvo/how_en.htm, used 2014-05-05
- European Commission, 2014d. http://ec.europa.eu/eu_law/index_en.htm, used 2014-05-05
- European Commission, 2014e. http://ec.europa.eu/dgs/health_consumer/index_en.htm, used 2014-05-26
- European Union, 2014. http://europa.eu/about-eu/countries/index_en.htm, used 2014-03-21
- EUWelNet, 2013. <https://www.euwelnetpigtraining.org/Pages/1>, used 2014-05-17
- Millman, S. T. 2009. Animal Welfare—Scientific Approaches to the Issues. *Journal of Applied Animal Welfare Science*. 12, 88 – 96.

- Munsterhjelm, C., Peltoniemi, O. A. T., Heinonen, M., Hälli, O., Karhapää, M. & Valros, A. 2009. Experience of moderate bedding affects behaviour of growing pigs. *Applied Animal Behaviour Science*. 118, 42 – 53.
- Munsterhjelm, C., Brunberg, E., Heinonen, M., Keeling, L. & Valros, A. 2013a. Stress measures in tail biters and bitten pigs in a matched case-control study. *Animal Welfare*. 22, 331 – 338.
- Munsterhjelm, C., Simola, O., Keeling, L., Valros, A. & Heinonen, M. 2013b. Health parameters in tail biters and bitten pigs in a case-control study. *Animal*. 7, 814 – 821.
- Oostindjer, M., van den Brand, H., Kemp, B. & Bolhuis, E. J. 2011. Effects of environmental enrichment and loose housing of lactating sows on piglet behaviour before and after weaning. *Applied Animal Behaviour Science*. 134, 31 – 41.
- Scollo, A., Di Martino, G., Bonfanti, L., Stefani, A. L., Schiavon, E., Marangon, S. & Gottardo, F. 2013. Tail docking and the rearing of heavy pigs: The role played by gender and the presence of straw in the control of tail biting. Blood parameters, behaviour and skin lesions. *Research in Veterinary Science*. 95, 825 – 830.
- Staaf Larsson, B. 2007.
- Statham, P., Green, L. & Mendl, M. 2011. A longitudinal study of the effects of providing straw at different stages of life on tail-biting and other behaviour in commercially-housed pigs. *Applied Animal Behaviour Science*. 134, 100 – 108.
- Sutherland, M. A., Bryer, P. J., Krebs, N. & McGlone, J. J. 2009. The effect of method of tail docking on tail-biting behaviour and welfare of pigs. *Animal Welfare*. 18, 561 – 570.
- Van de Perre, V., Driessen, B., Van Thielen, J., Verbeke, G. & Geers, R. 2011. Comparison of pig behaviour when given a sequence of enrichment objects or a chain continuously. *Animal Welfare*. 20, 641 – 649.
- Viktorsson Lindh, S. 2013.
- Zonderland, J. J., van Riel, J. W., Bracke, M. B. M., Kemp, B., den Hartog, L. A. & Spoolder, H. A. M. 2009. Tail posture predicts tail damage among weaned piglets. *Applied Animal Behaviour Science*. 121, 165 – 170.
- Zwicker, B., Gygas, L., Wechsler, B. & Weber, R. 2013. Short- and long-term effects of eight enrichment materials on the behaviour of finishing pigs fed ad libitum or restrictively. *Applied Animal Behaviour Science*. 144, 31 – 38.

11. Appendix

- Appendix 1. FVO-reports
- Appendix 2. Questions to the Commission
- Appendix 3. Follow-up questions to Bente Bergersen
- Appendix 4. Questions to the FVO
- Appendix 5. Follow-up questions to Terence Cassidy

Appendix 1.

FVO-reports

Member State					Comments
Austria	2011-6096	8049-2006			
Belgium	2011-6039	2009-8255			
Bulgaria	2012-6454	2010-8383			
Czech Republic	2010-8384	2007-7232			
Croatia					No on farm revisions has been made.
Cyprus	2009-8244				
Denmark	2010-8392	2007-7238			
Estonia	2009-8600	2005-7714			
Finland	2009-8262	2007-7329			
France	2012-6446	2010-8390	2006-8045		
Germany	2012-6380	2008-7980	2007-7236		
Greece	2009-8243	2007-7244			
Hungary	2011-6045	8050-2006			
Ireland	8052-2006				
Italy	2011-6048	2010-8388	7636-2005		
Latvia	2012-6525	2009-8271			
Lithuania	2012-6526	2009-8252	8046-2006	7306-2004	
Luxembourg	2010-8385				
Malta	2010-8386	2009-8270			
Netherlands	2012-6376	7512-2005			
Poland	2011-6049	2010-8387	7638-2005		

Portugal	2011-6049	2010-8387	7544-2005		
Romania	2012-6374	2010-8389			
Slovakia	2011-6053	8047-2006			
Slovenia	2012-6375	2009-8241	2007-7335		
Spain	2008-8347				Only a General Audit
Sweden	2010-8391	2007-7336			
United Kingdom	2009-8268	2006-8044			

Appendix 2.

Questions to the Commission

The FVO has made several revisions of the Member States in European Union during the past ten years. During this period it has been a legal requirement to provide sows and gilts with manipulable material (EC 2008/120 Article 3 [5]). On the 10th of March, 2009, the access of manipulable material came to include all categories of pigs (EC 2008/120 Annex I, Chapter I [4]), as well as the systematically tail docking was prohibited (EC 2008/120 Annex I, Chapter I [8]). Even if these are legal requirements, the reports from the FVO shows that tail docking is systematically practised and that it has been like that during several years. It has been a recommendation in several reports from the FVO to investigate other measures to reduce the need of tail docking and to ensure the compliance of a satisfying amount of manipulable material. How does the Commission respond to these findings, that it is practised and that it has been during several years, even if it is prohibited?

Have there been any actions from the Commission to increase the compliance of these legal requirements in the Member States? Have there been any subsidies to the Member States regarding the compliance of EC 2008/120 Annex I, Chapter I (4 & 8)?

- If there is, where do I find the official documents of that?
- If not, what are the reasons?

The Competent Authorities in some Member States declare that they have taken actions as a result of the recommendations from the FVO regarding the systematically practice of tail docking. These actions are in some cases researches to investigate other measures but tail docking to prevent tail biting. How does the Commission consider those actions? Is there a need of further research to investigate measures to prevent tail biting?

The Competent Authorities in Denmark declare that they have taken satisfying actions to prevent tail docking, but with no further success. The FVO concludes that the actions that they have taken have not been satisfying enough, and the recommendation remains. How

does the Commission respond to that? They also suggest a further discussion with the Commission. Have there been any conclusions during this discussion? Where can I find those documents?

The national policy in the Netherlands concludes that there will be no practice of tail docking in 2023, nine years from now and 14 years from the date when the Council Directive EC 2008/120 on pigs entered into force. A research made by Bracke *et al.* (2013) concludes that only 2-3% of conventional farmers provide their pigs with manipulable material, as those mentioned in EC 2008/120 Annex I, Chapter I (4). How do the Commission consider those findings?

At what perspective of time does the Commission consider that tail docking will not be practiced in the European Union?

Reference:

Bracke, M. B. M., De Lauwere, C. C., Wind, S. M. M. & Zonerland, J. J. 2013. Attitudes of Dutch Pig Farmers Towards Tail Biting and Tail Docking. *Journal of Agricultural and Environmental Ethics*. 26, 847 – 868.

Appendix 3.

Follow-up questions to Bente Bergersen

I understand that it is primarily the Member States obligation to implement and enforce legal requirements. Since the Commission is the institution to monitor and control the implementation of legal requirements, I thought it would be interesting to get a comment from the Commission regarding the compliance of the legal requirements in EC 2008/120 directive on pigs.

Due to limited space I was not mentioning all of the reports where there had been recommendations for several years. Some of them are the reports from Germany, 2008-7980 and 2012-6380, the reports from Greece, 2007-7244 and 2009-8243, and the reports from Italy, 2010-8388 and 2011-6048.

So if I don't misunderstand your answer, there have not been any subsidies or infringement proceedings against Member States in the European Union, regarding manipulable material or tail docking? If the non-compliances continue, will there be any further actions to increase the compliance of legal requirements?

I am happy to see that you would like to see a full compliance as soon as possible. At what perspective of time do you think it is possible to achieve this?

Appendix 4.

Questions to the FVO

The FVO has made several revisions of the Member States in European Union during the past ten years. During this period it has been a legal requirement to provide sows and gilts

with manipulable material (EC 2008/120 Article 3 [5]). On the 10th of March, 2009, the access of manipulable material came to include all categories of pigs (EC 2008/120 Annex I, Chapter I [4]), as well as the systematic tail docking was prohibited (EC 2008/120 Annex I, Chapter I [8]). Even if these are legal requirements, the reports from the FVO shows that tail docking is systematically practiced and that it has been like that during several years. It has been a recommendation in several reports from the FVO to investigate other measures to reduce the need of tail docking and to ensure the compliance of a satisfying amount of manipulable material. How do the FVO respond to these findings, that it is practiced and that it has been during several years, even if it is prohibited?

During the revision of the Competent Authorities in France, 2010, the Audit Team noted that a satisfying amount of manipulable material was not available for all categories of pigs. Even if this was noted, there was no recommendation to ensure that pigs did have access to manipulable material. The Audit Team also concluded that satisfying actions to prevent tail biting had not been taken. Why was neither of those recommended? Similar contents are found in other reports from other Member States.

During the revisions in Portugal 2009 and 2012 tail docking was not mentioned, even if it was a recommendation in the reports from 1999 and 2005 to take measures so that requirements applicable to tail docking and environmental enrichment were addressed. What is the reason that those requirements were not investigated by the Audit Team?

The Competent Authorities in some Member States declare that they have taken actions as a result of the recommendations from the FVO regarding the systematic practice of tail docking. These actions are in some cases researches to investigate other measures but tail docking to prevent tail biting. How do the FVO consider those actions? Is there a need of further research to investigate measures to prevent tail biting? Is the knowledge of other measures to prevent tail biting not satisfying enough?

The national policy in the Netherlands concludes that there will be no practice of tail docking in 2023, nine years from now and 14 years from the date when the Council Directive EC 2008/120 on pigs entered into force. A research made by Bracke *et al.* (2013) concludes that only 2-3% of conventional farmers provide their pigs with manipulable material, as those mentioned in EC 2008/120 Annex I, Chapter I (4). How do the FVO consider those findings?

At what perspective of time does the FVO consider that tail docking will not be practiced in the European Union?

Reference:

Bracke, M. B. M., De Lauwere, C. C., Wind, S. M. M. & Zonerland, J. J. 2013. Attitudes of Dutch Pig Farmers Towards Tail Biting and Tail Docking. *Journal of Agricultural and Environmental Ethics*. 26, 847 – 868.

Appendix 5.

Follow-up questions to Terence Cassidy

I might have misunderstood when EC 2008/120 entered into force. According to article 14 it is entering into force 20 days after the publishing in the Official Journal of the European Union, which were on the 10th of March 2009. I am aware of that directives are implemented in the national legislation, but at what time is it supposed to be enforced? Due to the report from Portugal, 2009-8242, the Audit Team concluded that the provision of manipulable material to all categories of pigs was not complied. The Competent Authorities had misunderstood the date of when the legal requirements entered into force. This means that it was a recommendation to provide all categories of pigs with manipulable material at the time of revision, or have I misunderstood the findings in that report?

I am aware that the FVO is auditing the Competent Authorities and inspectors, and not the farms that they are visiting. In some cases though, the inspectors does not detect non-compliances where the Audit Team detects it, but there is no recommendation of to ensure compliance with legal requirements. For example, Bulgaria 2010-8383, systematically practiced tail docking was accepted by the Competent Authority. There was no evidence that there had been any investigation of how to improve the environment and housing systems to prevent tail docking. Manipulable material was not provided to all categories of pigs, and had only to be provided to pigs that shows aggressive behaviours. No recommendation regarding manipulable material or tail docking was given.

The “technical feasibilities” that you are mentioning, does that mean that it is an impossibility to comply with the legal requirements regarding the provision of manipulable material? Is there any plan of further action to improve the pig farming system to get rid of the “technical feasibilities”, and with that be able to comply with the legal requirements?

Where can I find the infringement proceedings against some Member States?

Vid **Institutionen för husdjurens miljö och hälsa** finns tre publikationsserier:

- * **Avhandlingar:** Här publiceras masters- och licentiatavhandlingar
- * **Rapporter:** Här publiceras olika typer av vetenskapliga rapporter från institutionen.
- * **Studentarbeten:** Här publiceras olika typer av studentarbeten, bl.a. examensarbeten, vanligtvis omfattande 7,5-30 hp. Studentarbeten ingår som en obligatorisk del i olika program och syftar till att under handledning ge den studerande träning i att självständigt och på ett vetenskapligt sätt lösa en uppgift. Arbetenas innehåll, resultat och slutsatser bör således bedömas mot denna bakgrund.

Vill du veta mer om institutionens publikationer kan du hitta det här:
www.slu.se/husdjurmiljohalsa

DISTRIBUTION:

Sveriges lantbruksuniversitet
Fakulteten för veterinärmedicin och
husdjursvetenskap
Institutionen för husdjurens miljö och hälsa
Health
Box 234
532 23 Skara
Tel 0511-67000
E-post: hmh@slu.se
Hemsida:
www.slu.se/husdjurmiljohalsa

*Swedish University of Agricultural Sciences
Faculty of Veterinary Medicine and Animal
Science
Department of Animal Environment and
P.O.B. 234
SE-532 23 Skara, Sweden
Phone: +46 (0)511 67000
E-mail: hmh@slu.se
Homepage:
www.slu.se/animalenvironmenthealth*
